What is claimed is:

1. A screening method for genes participating in increase in productivity and/or improvement in flavor in the production of an alcohol or an alcoholic beverage, characterized in that, (a) the whole genome sequence of industrial yeast is analyzed, (b) these sequence is compared with that of Saccharomyces cerevisiae, (c) gene of the industrial yeast encoding an amino acid sequence having 70 to 97% identity to an amino acid sequence encoded by the gene of Saccharomyces cerevisiae is selected and (d) functional analysis of the selected gene is carried out, whereby the character given to the yeast by the gene is identified.

2. A screening method claimed in Claim 1, wherein a DNA array is used for the functional analysis in (d) of Claim 1.

3. A method as clamed in Claim 2, wherein a DNA array, in which one or more of oligonucleotides comprising the following DNA sequence or its complementary DNA sequence is adhered to a solid support, is used;

DNA sequence (1) having 10 to 30 nucleotides existing in an open reading frame of the whole genome sequence of an industrial yeast and (2) not existing in the region other than the region of said 10 to 30 nucleotides sequence in the whole genome sequence.

4. A method as claimed in Claim 2, wherein a DNA array, in which one or more of oligonucleotides hybridizing in a stringent condition to the oligonucleotides defined in Claim

3 is/are adhered to a solid support, is used.

5. A method as claimed in Claims 2, wherein a DNA array, in which one or more of oligonuclaeotides comprising the following DNA sequence or its complementarty DNA sequence is adhered to a solid support, is used;

DNA sequence (1) having 10 to 30 nucleotides existing in a non-coding region of the whole genome sequence of an industrial yeast and

(2) not existing in the region other than the region of said 10 to 30 nucleotides sequence in the whole genome sequence.

6. A method as claimed in Claim 2, wherein a DNA array, in which one or more of oligonucleotides hybridizing in a stringent condition to the oligonucleotides defined in Claim 5 is/are adhered to a solid support, is used.

7. A method as claimed in Claim 2, wherein a DNA array, in which oligonucleotides selected from two or more groups of the following 4 groups consisting of one or more of oligonucleotides defined in Claim 3, one or more of oligonucleotides defined in Claim 4, one or more of oligonucleotides defined in Claim 5, and one or more of oligonucleotides defined in Claim 6 are adhered to a solid support, is used.

8. The screening method according to any of Claims 1 to 7, wherein the industrial yeast is brewing yeast.

9. The screening method according to any of Claims 1 to 8, wherein the brewing yeast is beer yeast.

10. Gene which is obtained by the screening method according to Claim 1.

11. The gene according to Claim 10, which is characterized by that, when the gene mentioned in Claim 10 is expressed in yeast, the concentration of sulfite in a culture medium of the yeast increases.

12. DNA which comprises a DNA sequence represented by SEQ ID NO: 1 or 2, and DNA which hybridizes to the said DNA under stringent condition.

13. DNA which encodes a polypeptide having an amino acid sequence represented by SEQ ID NO: 3 or 4, and DNA which encodes polypeptide having an amino acid sequence in which one to several amino acid residue(s) is/are deficient and/or substituted and/or added in an amino acid sequence represented by SEQ ID NO: 3 or 4.

14. A recombinant vector containing the gene or the DNA mentioned in any of Claims 9 to 12.

15. The recombinant vector according to Claim 9, wherein promoter and/or terminator are/is placed adjacent to the gene or the DNA mentioned in any of Claims 10 to 13.

16. The recombinant vector according to Claim 15, wherein the promoter is a promoter which shows constitutive expression.

17. The recombinant vector according to Claim 15 or 16, wherein the promoter is a promoter of glyceraldehyde-3-phosphate dehydrogenase gene.

18. A transformant containing the gene or the DNA or the recombinant vector mentioned in any of Claims 10 to 17.

19. The transformant according to Claim 18, wherein the transformant belongs to yeast of genus Saccharomyces.

20. A polypeptide encoded by the gene or the DNA mentioned in any of Claims 10 to 13 or a polypeptide having an amino acid sequence in which one to several amino acid residue(s) is/are deficient and/or substituted and/or added in an amino acid sequence in the said polypeptide.

21. A polypeptide having an amino acid sequence represented by SEQ ID NO: 3 or 4 or a polypeptide having an amino acid sequence in which one to several amino acid residue(s) is/are deficient and/or substituted and/or added in the amino acid sequence represented by SEQ ID NO: 3 or 4.

22. A method for the production of an alcohol or an alcoholic beverage, characterized in that, the transformant mentioned in Claim 18 or 19 is used.

23. A breeding method of yeast which is suitable for the production of an alcohol or an alcoholic beverage, characterized in that, expression of the gene mentioned in Claim 10 or 11 or gene on the DNA mentioned in Claim 12 or 13 is controlled.

24. The breeding method according to Claim 23, wherein the yeast belongs to the genus Saccharomyces.

25. Yeast obtained by the breeding method according to Claim 23 or 24.

26. A method for the production of an alcohol or an alcoholic beverage using the yeast mentioned in Claim 25.

27. An alcohol or an alcoholic beverage which is produced using the method for the production of an alcohol or an alcoholic beverage according to Claim 26.

28. A DNA array, in which one or more of oligonucleotides comprising the following DNA sequence or its complementary DNA sequence is adhered to a solid support;

DNA sequence (1) having 10 to 30 nucleotides existing in an open reading frame of the whole genome sequence of an industrial yeast and

(2) not existing in the region other than the region of said 10 to 30 nucleotides sequence in the whole genome sequence.

29. A DNA array, in which one or more of oligonucleotides

hybridizing in a stringent condition to the oligonucleotides defined in Claim 28 is/are adhered to a solid support.

30. A DNA array, in which one or more of oligonuclaeotides comprising the following DNA sequence or its complementarty DNA sequence is adhered to a solid support;

DNA sequence (1) having 10 to 30 nucleotides existing in a non-coding region of the whole genome sequence of an industrial yeast and

(2) not existing in the region other than the region of said 10 to 30 nucleotides sequence in the whole genome sequence.

31. A DNA array, in which one or more of oligonucleotides hybridizing in a stringent condition to the oligonucleotides defined in Claim 30 is/are adhered to a solid support.

32. A DNA array, in which oligonucleotides selected from two or more groups of the following 4 groups consisting of one or more of oligonucleotides defined in Claim 28, one or more of oligonucleotides defined in Claim 29, one or more of oligonucleotides defined in Claim 30, and one or more of oligonucleotides defined in Claim 31 are adhered to a solid support.